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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,734	02/19/2004	Kiyoyuki Narimatsu	118779	3301

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER	
MALLARI, PATRICIA C	

ART UNIT	PAPER NUMBER
3736	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/780,734	NARIMATSU ET AL.	
	Examiner	Art Unit	
	Patricia C. Mallari	3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-7* is/are rejected.

7)☒ Claim(s) *2 and 6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/19/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 4 is objected to because of the following informalities: on line 4 of claim 4, "obtaining means obtaining" should be replaced with "obtaining means obtains". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> Or
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3-5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,921,936 to Inukai et al. Inukai teaches a blood flow amount estimating apparatus comprising a blood pressure related information obtaining means 10, 14, 24 for obtaining blood pressure related information that is related to a first blood pressure of a first portion of the subject (col. 2, line 56-col. 3, line 25 of Inukai). A pulse wave detecting device 34, 46 detects a pulse wave from the first portion (col. 3, lines 56-col.

4, line 36 of Inukai). An arteriosclerosis related information obtaining means obtains, based on the pulse wave detected by the pulse wave detecting device, arteriosclerosis related information that is related to arteriosclerosis (col. 6, lines 36-50 of Inukai). An output device 32 outputs a graph having an axis indicative of blood pressure related information and an axis indicative of arteriosclerosis related information and indicates that blood flow amount changes with respective changes of blood pressure related information and displays a symbol on the graph, in the form of a curve or line, representing the blood pressure related information obtained by the blood pressure related information obtaining means and the arteriosclerosis related information obtained by the arteriosclerosis related information obtaining means (fig. 6, 10; col. 8, lines 55-67; col. 12, lines 36-43 of Inukai). Although the reference fails to explicitly recite an output-device control means, it is clear that such a control means must be included in the apparatus of Inukai in order for the apparatus to display the graph and symbol on the display device as disclosed.

Regarding claim 3, a second heartbeat synchronous signal detecting device 62 detects a second heartbeat synchronous signal from a third portion of the subject (col. 4, lines 53-65 of Inukai), wherein the arteriosclerosis related information obtaining means obtains, based on the detected pulse wave and the second heartbeat synchronous signal, the arteriosclerosis related information comprising pulse wave propagation velocity related information that is related to a velocity at which the pulse wave propagates in the first portion of the subject (col. 6, lines 36-50 of Inukai).

Regarding claim 4, the blood pressure related information obtaining means comprises a blood pressure measuring device 10, 14 that non-invasively measures a second blood pressure of a second portion of the subject, wherein the blood pressure related information obtaining means obtains, based on the second blood pressure measured, the blood pressure related information that is related to the first blood pressure of the first portion of the subject (fig. 1; col.3, lines 6-25 of Inukai).

Regarding claim 5, the output device comprises a display device 32 which displays the graph and the symbol within the graph (figs. 1, 6, & 10; col. 3, lines 31-32; col. 8, lines 53-67; col. 12, lines 36-43 of Inukai).

Claims 1 and 3-7 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,565,515 to Ogura.

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Ogura discloses a blood flow amount estimating apparatus comprising a blood pressure related information obtaining means 52, 56, 60, 62, 96 for obtaining blood pressure related information that is related to a first blood pressure of a first portion of

the patient (fig. 1; col. 4, line 56-col. 6, line 7; col. 9, lines 4-17 of Ogura). A pulse wave detecting device 76 detects a pulse wave from the first portion (fig. 1; col. 6, line 55-col. 7, line 9 of Ogura). An arteriosclerosis related information obtaining means obtains, based on the detected pulse wave, arteriosclerosis related information (col. 7, line 62-col. 8, line 25 of Ogura). An output device 70 is controlled by an output device controlling means 98 to output a graph having an axis indicated of blood pressure related information and an axis indicative of arteriosclerosis related information and indicates that blood flow amount changes with respective changes of blood pressure related information and arteriosclerosis related information. The display additionally outputs in the graph a symbol representing the blood pressure related information obtained by the blood pressure related information obtaining means and the arteriosclerosis related information obtained by the arteriosclerosis related information obtaining means (fig. 6; col. 9, lines 19-34 of Ogura).

Regarding claims 3 and 6, a second heartbeat synchronous signal detecting device 72 detects a second heartbeat synchronous signal from a third portion of the subject, where the arteriosclerosis related information obtaining means obtains, based on the detected pulse wave and the detected second heartbeat synchronous signal, the arteriosclerosis related information comprising pulse wave propagation velocity related information (col. 6, lines 20-54; col. 7, line 62-col. 8, line 25 of Ogura). With further regard to claim 6, the second heartbeat synchronous signal detecting device comprises a heart sound microphone (col. 6, lines 20-35 of Ogura).

Regarding claim 4, the blood pressure related information obtaining means comprises a blood pressure measuring device 52, 56 which non-invasively detects a second blood pressure of a second portion of the subject, where the blood pressure related information obtaining means obtains, based on the second blood pressure, the blood pressure related information that is related to the first blood pressure of the first portion of the subject (fig. 1; col. 4, line 56-col. 6, line 7; col. 9, lines 4-17 of Ogura).

Regarding claim 5, the output device comprises a display device that displays the graph and the symbol (col. 9, lines 19-34 of Ogura).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422

F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3, 5, and 7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 3 of U.S. Patent No. 6,726,632 to Tampo et al. in view of US Patent No. 5,921,936 to Inukai et al. Claim 3 of Tampo, which depends upon claim 1, recites a blood pressure related information obtaining means (col. 13, lines 40-41 of Tampo), an arteriosclerosis related information obtaining means (col. 13, lines 42-46 of Tampo), an output device (col. 13, line 47 of Tampo), and an output device control means (col. 13, lines 49-61 of Tampo), as claimed in claim 1 of the instant application. Claim 3 further recites a first heartbeat synchronous signal detecting device (col. 14, lines 34-36 of Tampo) but fails to describe such device further. However, Inukai teaches a blood flow amount estimating apparatus where a pulse wave detecting device 34, 46 is used as a first heartbeat synchronous signal detecting device and detects a first heartbeat synchronous signal from a first portion of the subject,

wherein such signal is used to determine a pulse wave propagation time (col. 3, line 56-col. 4, line 35; col. 6, lines 36-50 of Inukai). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the pulse wave detecting device of Inukai as the first heartbeat synchronous signal detecting device of Tampo, since Tampo teaches using such a heartbeat synchronous signal detecting device, and Inukai discloses a pulse wave detecting device to be a suitable such heartbeat synchronous signal detecting device.

Tampo further recites a second heartbeat synchronous signal detecting device (col. 14, lines 36-39 of Tampo), where the arteriosclerosis related information is determined based on the first and second heartbeat synchronous signals and comprises a pulse wave propagation velocity related information (col. 14, lines 40-49 of Tampo), with regard to claim 3 of the instant application.

Regarding claim 5, Tampo teaches the output device as a display device (col. 13, line 46 of Tampo), where the display device displays the graph and symbol (col. 13, lines 49-57 of Tampo).

Allowable Subject Matter

Claims 2 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 2 and 6, the prior art of record fails to teach or fairly suggest a

blood flow amount estimating apparatus wherein the blood pressure related information obtaining means comprises a cervical blood pressure determining means or device for determining, as the blood pressure related information, a cervical blood pressure of the cervical portion based on a minimum magnitude, an area-gravity-center magnitude, and a maximum magnitude of the carotid pulse wave detected by the carotid pulse wave detecting device and the brachial blood pressure values determined by the brachial blood pressure determining means, in combination with all of the other limitations of the claim. US Patent No. 6,869,401 to Narimatsu et al. teaches an apparatus comprising a blood pressure related information obtaining means comprising a carotid pulse wave detecting device, a cuff adapted to be worn on a brachial portion of the subject, a brachial blood pressure determining means, and a cervical blood pressure determining means that determines a cervical blood pressure based on a minimum magnitude, an area-gravity-center magnitude, and a maximum magnitude of the carotid pulse wave and the brachial blood pressure values determined (col. 6, line 40-col. 7, line 59; col. 9, line 61-col. 10, line 19; col. 11, line 35-col. 12, line 60 of Narimatsu). However, Narimatsu lacks an output device control means as described in claim 1 of the instant application, nor does there appear to be sufficient motivation to combine Narimatsu with either Ogura, as applied to claims 1 and 3-7 above, or Inukai, as applied to claims 1, 3-5, and 7 above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,884,221 to Narimatsu et al.

US Patent No. 6,355,000 to Ogura.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia C. Mallari whose telephone number is (571) 272-4729. The examiner can normally be reached on Monday-Friday 10:00 am-6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patricia Mallari
Patent Examiner
Art Unit 3736

MAX F. HINDENBURG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700